

## ABSTRACT OF THE DISCLOSURE

### 5                    **TOUCH SENSITIVE DEVICE EMPLOYING BENDING WAVE VIBRATION SENSING AND EXCITATION TRANSDUCERS**

          A touch sensitive apparatus includes a touch plate to which several pickup sensors  
and at least one excitation transducer are coupled. Each of the sensors is configured to sense  
10    bending waves in the touch plate, and the excitation transducer is configured to induce  
bending waves in the touch plate. The apparatus may further include active buffer circuits,  
wherein each of the active buffer circuits is coupled to one of the sensors. A controller is  
coupled to the sensors via the active buffer circuits and to the excitation transducer via a non-  
actively buffered connection. The controller is configured to compute a location of a contact  
15    on the touch plate responsive to sense signals received from the sensors. The apparatus may  
be used to perform a variety of calibrations, including touch plate and sensor calibrations.  
Changes in touch sensing apparatus calibration and performance may be detected and tracked  
over time.